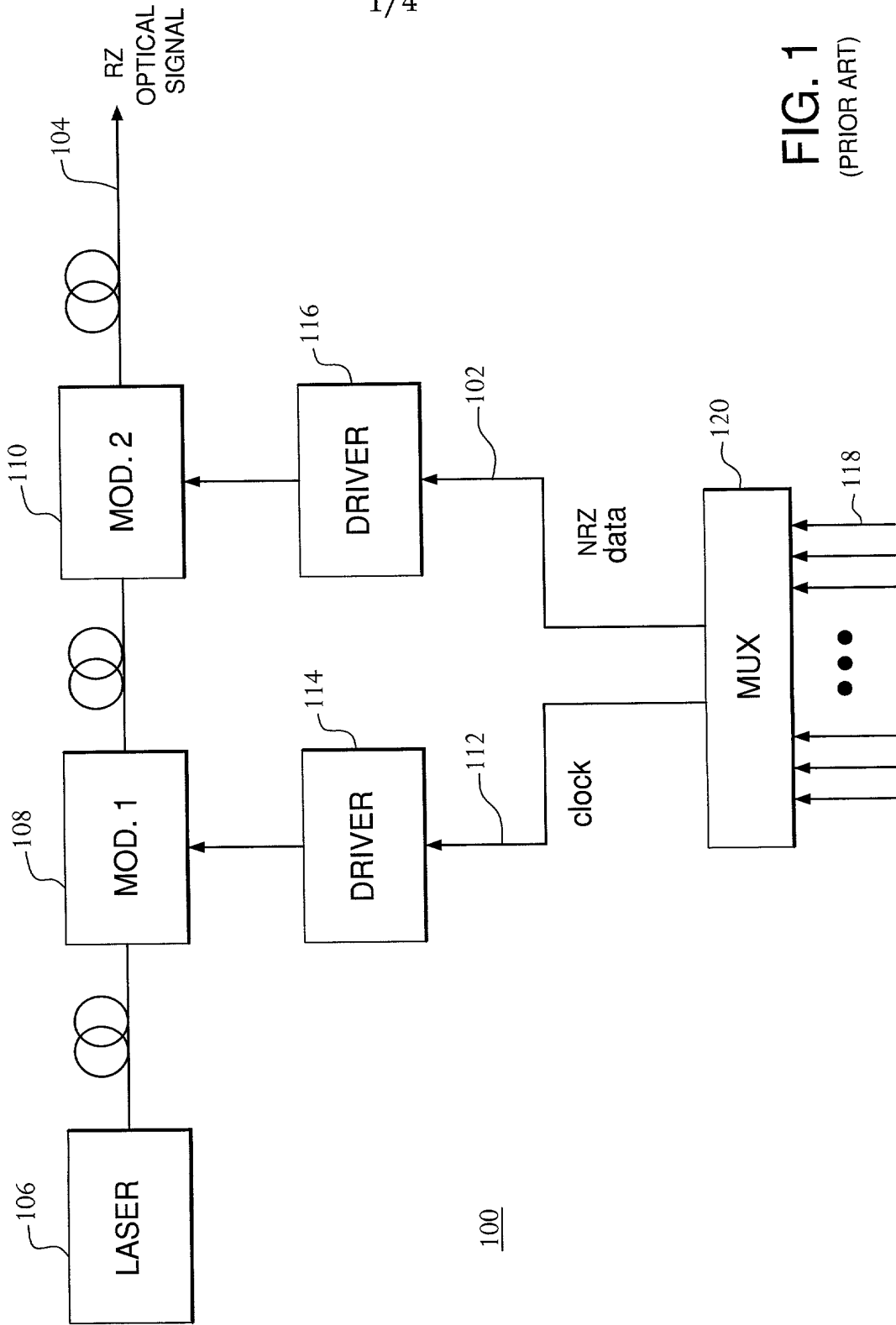


FIG. 1 is a block diagram of a prior art optical communication system 100. The system 100 includes a laser 106, a first modulator 108, a second modulator 110, a first driver 114, a second driver 116, a multiplexer 120, and an optical signal output 104. The laser 106 is connected to the first modulator 108. The first modulator 108 is connected to the second modulator 110. The second modulator 110 is connected to the optical signal output 104. The first driver 114 is connected to the first modulator 108. The second driver 116 is connected to the second modulator 110. The multiplexer 120 is connected to the first driver 114 and the second driver 116. The multiplexer 120 receives NRZ data and a clock signal. The multiplexer 120 outputs the NRZ data and the clock signal to the first driver 114 and the second driver 116.



1/4

FIG. 1
(PRIOR ART)

FIG. 2 is a block diagram of a system 200 for generating an RZ optical signal. The system 200 includes a laser 206, a modulator 208, a driver 210, a multiplexer (MUX) 220, and an optical signal output 204. The laser 206 is connected to the modulator 208. The modulator 208 is connected to the driver 210. The driver 210 is connected to the MUX 220. The MUX 220 has multiple inputs 218 and outputs 212 (clock) and 202 (data). The MUX 220 is connected to the driver 210. The driver 210 is connected to the modulator 208. The modulator 208 is connected to the optical signal output 204.

200

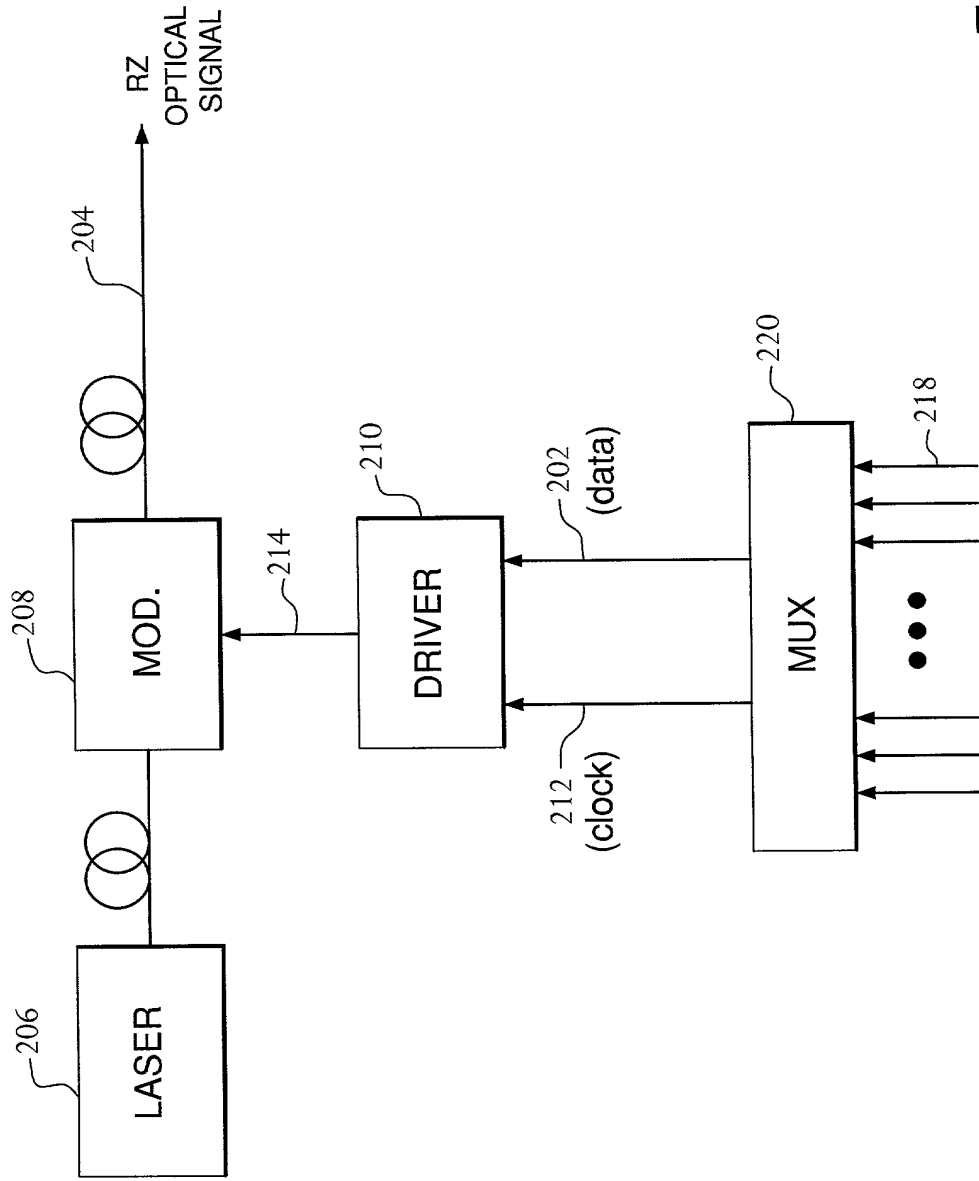


FIG. 2

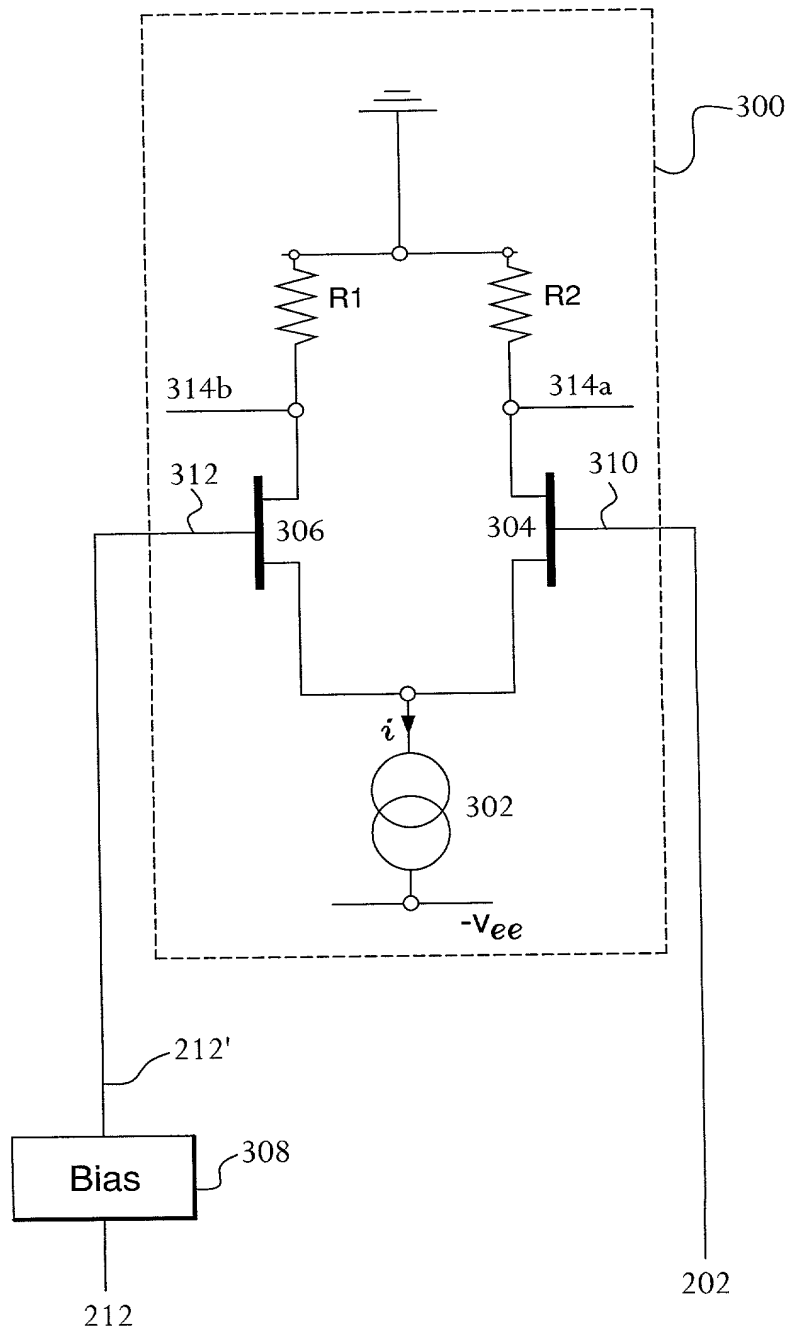
210

FIG. 3

FIG. 4 is a graph showing the output of the circuit of FIG. 1. The graph plots voltage (V) on the vertical axis against time on the horizontal axis. The vertical axis has markings at 0.5V, 0.0V, -2.0V, and 0V. The horizontal axis is labeled 'Time'. The graph shows a series of sharp, periodic pulses. The pulses are labeled 212', 202, and 314b. A dashed horizontal line is labeled 'offset'. The pulses 212' and 202 are positive-going, while the pulses 314b are negative-going. The pulses 212' and 202 are separated by a period of time, and the pulses 314b are separated by a period of time. The pulses 212' and 202 are separated by a period of time, and the pulses 314b are separated by a period of time.

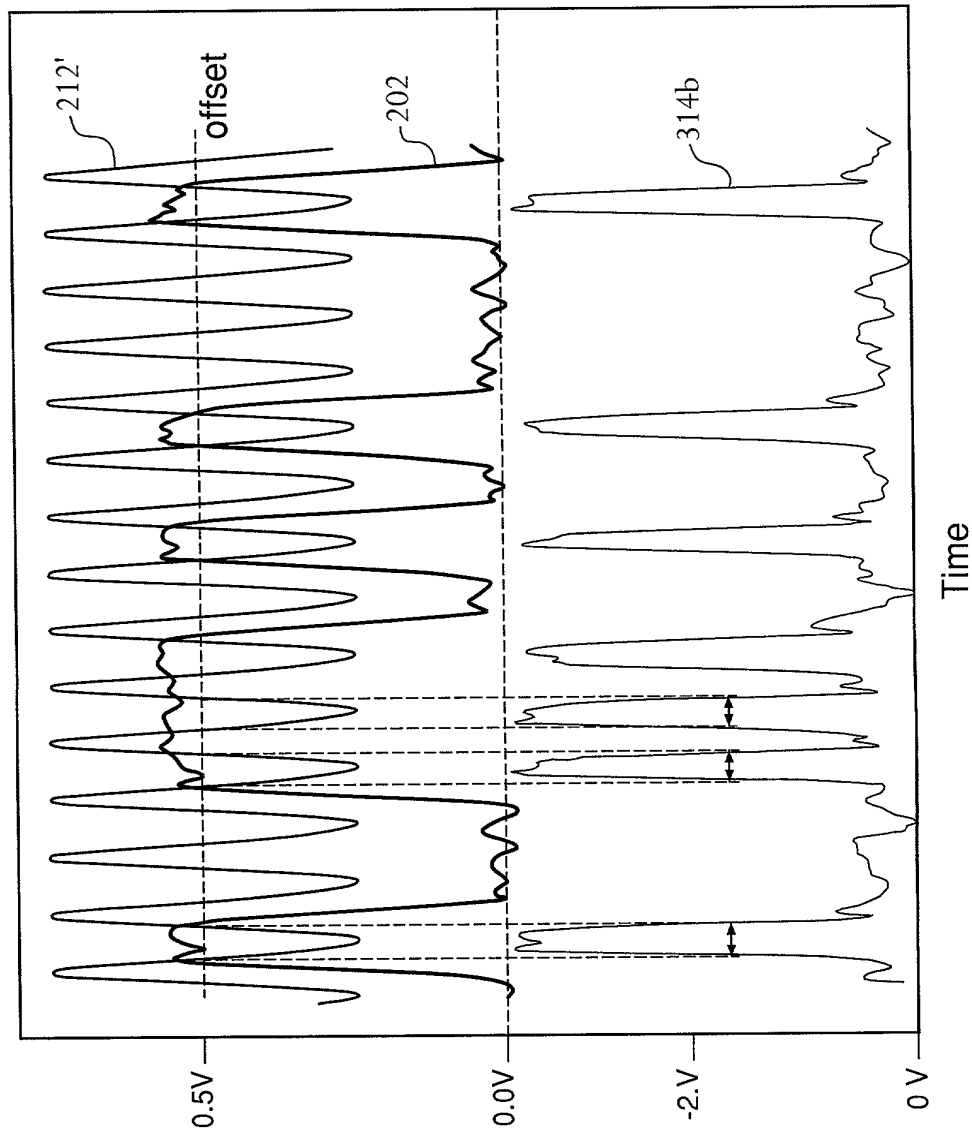


FIG. 4